

Appl. No. 10/799,016  
Amdt. dated March 29, 2007  
Amendment under 37 CFR 1.116 Expedited Procedure  
Examining Group 1645

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-34. (cancelled)

35. (Currently amended) An isolated  $\alpha$ -2,3-sialyltransferase polypeptide, wherein the  $\alpha$ -2,3-sialyltransferase polypeptide catalyzes the transfer of a sialic acid from a donor substrate to an acceptor sugar, and wherein the  $\alpha$ -2,3-sialyltransferase polypeptide comprises ~~an~~ the amino acid sequence ~~with at least 90% identity to~~ of residues 1-328 of SEQ ID NO:2, ~~over the entire length of~~ or an amino acid sequence that shares at least 95% identity with amino acid residues 1-328 of SEQ ID NO:2.

36-37. (Cancelled)

38. (Currently amended) The  $\alpha$ -2,3-sialyltransferase polypeptide of claim 37, wherein the  $\alpha$ -2,3-sialyltransferase polypeptide comprises ~~an~~ the amino acid sequence ~~with at least 95% identity to~~ of residues 1-430 of SEQ ID NO:2, ~~over the entire length of~~ or an amino acid sequence that shares at least 95% identity with amino acid residues 1-430 of SEQ ID NO:2.

39. (Previously presented) The  $\alpha$ -2,3-sialyltransferase polypeptide of claim 35, wherein the  $\alpha$ -2,3-sialyltransferase polypeptide further comprises an amino acid tag.

40. (Previously presented) The  $\alpha$ -2,3-sialyltransferase polypeptide of claim 39, wherein the amino acid tag is a member selected from the group consisting of polyhistidine, maltose binding protein, myc, V-5, and DYKDDDK (SEQ ID NO:8).

41. (Previously presented) A method of adding a sialic acid residue to an acceptor molecule comprising a terminal galactose residue, the method comprising contacting

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the acceptor molecule with an activated sialic acid molecule and an  $\alpha$ -2,3-sialyltransferase polypeptide of claim 35 or claim 37.

42. (Previously presented) The method of claim 41, wherein the terminal galactose residue is linked through a linkage to a second residue in the acceptor molecule.

43. (Previously presented) The method of claim 42, wherein the linkage is a  $\beta$ 1,4 linkage.

44. (Previously presented) The method of claim 43, wherein the second residue is a Glc or a GlcNAc.

45. (Previously presented) The method of claim 42, wherein the linkage is a  $\beta$ 1,3 linkage.

46. (Previously presented) The method of claim 45, wherein the second residue is a GlcNAc or a GalNAc.

47. (Previously presented) The method of claim 41, wherein the activated sialic acid is CMP-Neu5Ac.

48. (Currently amended) The method of claim 41, wherein the  $\alpha$ -2,3-sialyltransferase polypeptide comprises ~~an the~~ amino acid sequence with at least 95% identity to ~~of residues 1-328 of SEQ ID NO:2, over the entire length of residues 1-328.~~

49. (Previously presented) The method of claim 41, wherein the  $\alpha$ -2,3-sialyltransferase polypeptide further comprises an amino acid tag.

50. (Previously presented) The method of claim 49, wherein the amino acid tag is a member selected from the group consisting of polyhistidine, maltose binding protein, myc, V-5, and DYKDDDK (SEQ ID NO:8).